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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,681	04/13/2004	Shinobu Hirayama	HIRAYAMA3	3091
1444	7590	09/22/2005	EXAMINER	
BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303			ADDISU, SARA	
			ART UNIT	PAPER NUMBER
			3722	

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Taka

<b>Office Action Summary</b>	<b>Application No.</b> 10/822,681	<b>Applicant(s)</b> HIRAYAMA ET AL.	
	<b>Examiner</b> Sara Addisu	<b>Art Unit</b> 3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Objections***

The claim 12 objection is withdrawn due to Applicant's amendment filed on 7/6/05.

### ***Claim Rejections - 35 USC § 112***

The 35 USC 112 second paragraph rejection of Claims 3, 6 and 11 are withdrawn due to Applicant's amendment filed on 7/6/05.

### ***Response to Arguments***

Applicant's arguments, see page 12, lines 5-14, filed 7/6/05, with respect to claims 1-12, have been fully considered but they are not persuasive. The rejection of claims 1-12 stand rejected using JP 2002-126907 as prior art.

Regarding claims 1-12 of Applicant's argument (page 12, lines 7-14), "...is a NC processor which is not controlled to correspond to the acceleration force necessary to reciprocally move the slider as in the claimed invention, but controlled by the rpm of the spindle which is fixed at a predetermined value. Thus, the JP reference clearly does not suggest or teach the primary function of the claimed invention", attention is called to Paragraph [0006], lines 6-12 of the translation of JP 2002-126907 which teaches, "...the

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angle of rotation of main shaft varies every moment and is continuously detected by rotary encoder of a high-resolution, the actual amount which changes the cutting tool 15 by reciprocating motion of slider 12 every moment is continuously detected by the pulse coder provided". This corresponds to the Instant Application, page 10, lines 15-21 and page 38, lines 9-10 which teaches pulse command in terms of varying angle of rotation which is turned with a rotational frequency regulated to keep the acceleration of the slider in reciprocation as constant as possible at an acceleration that is pre-selected to the top acceleration or any acceleration as high as possible below the top acceleration.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2002-126907.

2002-126907 teaches using a numerical control (NC) processor comprising a work spindle to hold a workpiece (9) thereon, the work spindle being supported for rotation on a headstock (5), a Z-axis table allowing the work spindle to move in reciprocation in a Z-axis direction, an X-axis table arranged in opposition to the work

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spindle and moving in reciprocation in an X-axis direction ( X-axis direction being perpendicular to the Z-axis direction), a turner base (11) fastened to the X-axis table, a slider (12) allowed to move back and forth over the turner base in a Y-axis direction (Y-axis direction being parallel with the Z-axis direction), a cutting tool (15) mounted to the slider (12), and a driving means (comprising a linear-motor coil 19) to force the slider in reciprocation the Y-axis direction (2002-126907, figures 4-6). JP 2002-126907 (Paragraph [0006], lines 6-12 of the translation of JP 2002-126907) also teaches that the angle of rotation of main shaft varies every moment and is continuously detected by rotary encoder of a high-resolution, the actual amount which changes the cutting tool 15 by reciprocating motion (i.e. n times reciprocation) of slider 12 every moment is continuously detected by the pulse coder provided. This corresponds to the Instant Application, page 10, lines 15-21 and page 38, lines 9-10 which teaches pulse command in terms of varying angle of rotation which is turned with a rotational frequency regulated to keep the acceleration of the slider in reciprocation as constant as possible at an acceleration that is pre-selected to the top acceleration or any acceleration as high as possible below the top acceleration therefore JP 2002-126907 teaches acceleration of the slider in reciprocation that is set to a predetermined desired acceleration, additionally the rotating velocity of the work spindle is varied in terms of the predetermined acceleration, and movements of the slider in the Y-axis direction and the X-axis table in the X-axis direction are made synchronization with the varied rotating velocity of the work spindle (JP 2002-126907 teaches the pulse coder mentioned above also detecting the position of the x-axis table and the NC of servomotor for the x-

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axis table is actuated, Paragraph [0006], lines 17-20 of the translation of JP 2002-126907) whereby the cutting tool generates a desired curved surface (e.g. plastic-lens process therefore toric surface, Paragraph [0022], lines 1-6 of the translation of JP 2002-126907) on a surface of the workpiece lying perpendicular to the Y-axis direction of the cutting tool. Regarding claims 2, 11 and 12, JP 2002-126907 teaches a drive unit comprising a linear-motor coil (19) fixed to slide block (16) and a linear-motor magnet plate (20) built into slider (18) and the linear scale (21) and linear scale detector which detects the movement amount of slider (18) (22)(Page 4, last paragraph of the translation of JP 2002-126907). Regarding claim 3

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Addisu at (571) 272-6082. The examiner can normally be reached on 8:30 am - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sara Addisu  
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SA  
9/19/05

  
BOYER D. ASHLEY  
PRIMARY EXAMINER